
Contents for Volume 36, 1999

VOLUME 36 ■ JANUARY 1999 ■ NUMBER 1

Making the Case for Psychophysiology during the Era of Molecular Biology NORMAN B. ANDERSON AND PAUL A. SCOTT	1
Sleep State and Vagal Regulation of Heart Period Patterns in the Human Newborn: An Extension of the Polyvagal Theory STEPHEN W. PORGES, JANE A. DOUSSARD-ROOSEVELT, CYNTHIA A. STIFTER, BONITA D. McCLENNY, AND TODD C. RINIOLO	14
An Investigation of the Auditory Streaming Effect Using Event-Related Brain Potentials ELYSE SUSSMAN, WALTER RITTER, AND HERBERT G. VAUGHAN, JR.	22
Automated Face Analysis by Feature Point Tracking Has High Concurrent Validity with Manual FACS Coding JEFFREY F. COHN, ADENA J. ZLOCHOWER, JAMES LIEN, AND TAKEO KANADE	35
Phasic Pupil Dilation Response to Noxious Stimulation in Normal Volunteers: Relationship to Brain Evoked Potentials and Pain Report C. RICHARD CHAPMAN, SHUNICHI OKA, DAVID H. BRADSHAW, ROBERT C. JACOBSON, AND GARY DONALDSON	44
An Electrophysiological Investigation of Semantic Priming with Pictures of Real Objects W. BRIAN MCPHERSON AND PHILLIP J. HOLCOMB	53
Fear Appears Fast: Temporal Course of Startle Reflex Potentiation in Animal Fearful Subjects JUTTA GLOBISCH, ALFONS O. HAMM, FRANCISCO ESTEVES, AND ARNE ÖHMAN	66
Neurophysiological Measures of Reading Difficulty in Very-Low-Birthweight Children SHAKEELA C. KHAN, VIRGINIA FRISK, AND MARGOT J. TAYLOR	76
Workday Communication and Ambulatory Blood Pressure: Implications for the Reactivity Hypothesis ELIZABETH BRONDOLO, WILLIAM KARLIN, KWAME ALEXANDER, AMY BOBROW, AND JOSEPH SCHWARTZ	86
EEG Complexity and Performance Measures of Creative Thinking MATTHIAS MÖLLE, LISA MARSHALL, BRITTA WOLF, HORST L. FEHM, AND JAN BORN	95
Impedance Cardiography-Derived Hemodynamic Responses during Baroreceptor Testing with Amyl Nitrite and Phenylephrine: A Validity and Reliability Study RICHARD A. NELESEN, ROBERT SHAW, MICHAEL G. ZIEGLER, AND JOEL E. DIMSDALE	105
EEG Differences in Monozygotic Twins Discordant and Concordant for Schizophrenia HANS H. STASSEN, RICHARD COPPOLA, IRVING I. GOTTESMAN, E. FULLER TORREY, STEPHAN KUNY, KENNETH C. RICKLER, AND DANIEL HELL	109
Effects of Task Complexity in Young and Old Adults: Reaction Time and P300 Latency Are Not Always Dissociated FREN T.Y. SMULDERS, J. LEON KENEMANS, WOUTER F. SCHMIDT, AND ALBERT KOK	118
Concerning the Automaticity of Syntactic Processing THOMAS C. GUNTER AND ANGELA D. FRIEDERICI	126

Special Reports

- Measuring Liability for Schizophrenia Using Optimized Antisaccade Stimulus Parameters

JENNIFER E. McDOWELL, MARINA MYLES-WORSLEY, HILARY COON, WILLIAM BYERLEY,
AND BRETT A. CLEMENTZ

138

- Combining Electrophysiological and Hemodynamic Measures of the Auditory Oddball

B. OPITZ, A. MECKLINGER, D.Y. VON CRAMON, AND F. KRUGEL

142

VOLUME 36 ■ MARCH 1999 ■ NUMBER 2

Error-Related Processing during a Period of Extended Wakefulness

MARTEN K. SCHEFFERS, DARRYL G. HUMPHREY, ROBERT R. STANNY, ARTHUR F. KRAMER,
AND MICHAEL G.H. COLES

149

Effects of Dual Task Demands on the Accuracy of Smooth Pursuit Eye Movements

NORBERT KATHMANN, ANDREA HOCHREIN, AND RUTH UWER

158

**The Psychobiology of Strained Breathing and its Cardiovascular Implications:
A Functional System Review**

DIRK S. FOKKEMA

164

Gender Differences in Late Positive Components Evoked by Human Faces

JUAN C. OLIVER-RODRÍGUEZ, ZHIQIANG GUAN, AND VICTOR S. JOHNSTON

176

Schizophrenic Patients Show Facial Reactions to Emotional Facial Expressions

ANN M. KRING, SANDRA L. KERR, AND KELLY S. EARNST

186

**Individual Differences in Electrodermal Responsivity to Predictable Aversive Stimuli
and Substance Dependence**

JEANETTE TAYLOR, SCOTT R. CARLSON, WILLIAM G. IACONO, DAVID T. LYKKEN,
AND MATT McGUE

193

**Event-Related Potential Correlates of Proactive Interference in Schizophrenic Patients
and Controls**

PATRICIA RÖBNER, BRIGITTE ROCKSTROH, RUDOLF COHEN, MICHAEL WAGNER,
AND THOMAS ELBERT

199

A Distinction between the Initiation and the Continuation of Response Preparation

AARON B. ILAN AND JEFF MILLER

209

Poststimulus EEG Spectral Analysis and P300: Attention, Task, and Probability

KEVIN M. SPENCER AND JOHN POLICH

220

**How Many Nights Are Enough? The Short-Term Stability of Sleep Parameters in Elderly
Insomniacs and Normal Sleepers**

WILLIAM K. WOHLGEMUTH, JACK D. EDINGER, ANA I. FINS, AND ROBERT J. SULLIVAN, JR.

233

Dominance, Gender, and Cardiovascular Reactivity during Social Interaction

TAMAR L. NEWTON, CYNTHIA M. BANE, ADRIANA FLORES, AND JEFFREY GREENFIELD

245

Measuring Facial Expressions by Computer Image Analysis

MARIAN STEWART BARTLETT, JOSEPH C. HAGAR, PAUL EKMAN, AND TERRENCE J. SEJNOWSKI

253

**An Event-Related Brain Potential Study of Visual Selective Attention to Conjunctions of
Color and Shape**

H.G.O.M. SMID, A. JAKOB, AND H.-J. HEINZE

264

Announcement

280

VOLUME 36 ■ MAY 1999 ■ NUMBER 3

Olfactory P3 in Young and Older Adults CHARLIE D. MORGAN, MARK W. GEISLER, JAMES W. COVINGTON, JOHN POLICH, AND CLAIRE MURPHY	281
The Usefulness of Partial Information: Effects of Go Probability in the Choice/Nogo Task KATHY A. LOW AND JEFF MILLER	288
Cardiac Activity during Sleep Onset HELEN J. BURGESS, JAN KLEIMAN, AND JOHN TRINDER	298
Processing of Incongruous Mental Calculation Problems: Evidence for an Arithmetic N400 Effect MICHAEL NIEDEGGEN, FRANK RÖSLER, AND KERSTIN JOST	307
Facial Flushing during Provocation in Women PETER D. DRUMMOND	325
Impedance Pneumography: Noise as Signal in Impedance Cardiography JOHN M. ERNST, DANIEL A. LITVACK, DAVID L. LOZANO, JOHN T. CACIOPPO, AND GARY G. BERNTSON	333
Dissociating Beliefs about Heart Rates and Actual Heart Rates in Patients with Cardiac Pacemakers SABINE WINDMANN, OTHMAR W. SCHONECKE, GERD FRÖHLIG, AND GABRIELE MALDENER	339
P300 Sequence Effects Differ between Children and Adults for Auditory Stimuli R. KILPELÄINEN, A. KOISTINEN, M. KÖÖNEN, E. HERRGÅRD, J. PARTANEN, AND J. KARHU	343
The Effect of Response Execution on P3 Latency, Reaction Time, and Movement Time CYNTHIA DOUCET AND ROBERT M. STELMACK	351
The Lateralized Readiness Potential: Relationship between Human Data and Response Activation in a Connectionist Model KEVIN M. SPENCER AND MICHAEL G.H. COLES	364
Laser Pain Fails to Inhibit Innocuous-Related Activity in the Central Somatosensory Pathways ROBERT DOWMAN	371
Emotion-Processing Deficit in Alexithymia THOMAS M. ROEDEMA AND ROBERT F. SIMONS	379
Identification of Neural Circuits Underlying P300 Abnormalities in Schizophrenia BRIAN F. O'DONNELL, ROBERT W. MCCARLEY, GEOFFREY F. POTTS, DEAN F. SALISBURY, PAUL G. NESTOR, YOSHIO HIRAYASU, MARGARET A. NIZNIKIEWICZ, JOHN BARNARD, ZI JEN SHEN, DAVID M. WEINSTEIN, FRED L. BOOKSTEIN, AND MARTHA E. SHENTON	388
On Separating Processes of Event Categorization, Task Preparation, and Mental Rotation Proper in a Handedness Recognition Task JASMIN BAJRIĆ, FRANK RÖSLER, MARTIN HEIL, AND ERWIN HENNIGHAUSEN	399
Special Report	
A Componential Analysis of the ERP Elicited by Novel Events Using a Dense Electrode Array KEVIN M. SPENCER, JOSEPH DIEN, AND EMANUEL DONCHIN	409
Book Review	
<i>Advances in Psychological Science, Vol. 2: Biological and Cognitive Aspects</i> , edited by Michel Sabourin, Fergus Craik, and Michèle Robert REBECCA J. COMPTON AND BRANDY G. ISAACKS	415
Announcement	417

Perceptual and Response Interference in Children with Attention-Deficit Hyperactivity Disorder, and the Effects of Methylphenidate L.M. JONKMAN, C. KEMNER, M.N. VERBATEN, H. VAN ENGELAND, J.L. KENEMANS, G. CAMFFERMAN, J.K. BUITELAAR, AND H.S. KOELEGA	419
EEG Alpha Power and Alpha Power Asymmetry in Sleep and Wakefulness RUTH M. BENCA, WILLIAM H. OBERMEYER, CHRISTINE L. LARSON, BLENDY YUN, ISA DOLSKI, KENNETH D. KLEIST, STEVEN M. WEBER, AND RICHARD J. DAVIDSON	430
Event-Related Potentials to Structural Familiar Face Incongruity Processing BOUTHEINA JEMEL, NATHALIE GEORGE, ELA OLIVARES, NICOLE FIORI, AND BERNARD RENAULT	437
Effects of Stimulus Intensity, Risetime, and Duration on Autonomic and Behavioral Responding: Implications for the Differentiation of Orienting, Startle, and Defense Responses GRAHAM TURPIN, FLORIAN SCHAEFER, AND WOLFRAM BOUCSEIN	453
Amplitude Criteria and Anticipatory Saccades during Smooth Pursuit Eye Movements in Schizophrenia RANDAL G. ROSS, ANN OLINCY, AND ALLEN RADANT	464
Acoustic Startle Reflex in Schizophrenia Patients and their First-Degree Relatives: Evidence of Normal Emotional Modulation CLAYTON E. CURTIS, BOYD LEBOW, DAVID S. LAKE, JOANNA KATSANIS, AND WILLIAM G. IACONO	469
Timing and Characteristics of Perceptual Attenuation by Transcranial Stimulation: A Study Using Magnetic Cortical Stimulation and Somatosensory-Evoked Potentials N. ANDRE-OBADIA, L. GARCIA-LARREA, P. GARASSUS, AND F. MAUGUIERE	476
Lipid Reactivity among Men with a Parental History of Myocardial Infarction CATHERINE M. STONEY AND JOEL W. HUGHES	484
Attending to Quadrants and Ring-Shaped Regions: ERP Effects of Visual Attention in Different Spatial Selection Tasks MARTIN EIMER	491
Effects of the Presentation of False Heart-Rate Feedback on the Performance of Two Common Heartbeat-Detection Tasks GEOFFREY C. PHILLIPS, GARY E. JONES, ERIC J. RIEGER, AND JEFFRY B. SNELL	504
Converging Evidence for a Cognitive Anomaly in Early Psychopathology LEYAN O.L. FERNANDES, JENNIFER KELLER, JANINE E. GIESE-DAVIS, BLAIR D. HICKS, DANIEL N. KLEIN, AND GREGORY MILLER	511
Brief Report	
Effect of the Irrelevant Location of the Response Signal on Choice Reaction Time: An Electromyographic Study in Humans THIERRY HASBROUCQ, CAMILLE-AIMÉ POSSAMAÏ, MICHEL BONNET, AND FRANCK VIDAL	522
Commentary	
Why Bother to Spatially Embed EEG? Comments on Pritchard et al., <i>Psychophysiology</i> , 33, 362-368, 1996 LAURENT PEZARD, JEAN-PHILIPPE LACHAUX, NITZA THOMASSON, AND JACQUES MARTINERIE	527
On the Validity of Spatial Embedding: A Reply to Pezard et al. WALTER S. PRITCHARD	532
Announcement	536

VOLUME 36 ■ SEPTEMBER 1999 ■ NUMBER 5

SPR Award, 1998

For Distinguished Contributions to Psychophysiology: David Lykken DON C. FOWLES	537
Dynamics of SCR, EEG, and ERP Activity in an Oddball Paradigm with Short Interstimulus Intervals C.L. LIM, E. GORDON, C. RENNIE, J.J. WRIGHT, H. BAHRAMALI, W.M. LI, P. CLOUSTON, AND J.G.L. MORRIS	543
Dissociation of the Mismatch Negativity and Processing Negativity Attentional Waveforms with Nitrous Oxide ELIZABETH W. PANG AND BARRY FOWLER	552
An Electrophysiological Analysis of Animacy Effects in the Processing of Object Relative Sentences JILL WECKERLY AND MARTA KUTAS	559
Effects of Early and Late Nocturnal Sleep on Priming and Spatial Memory WERNER PLIHAL AND JAN BORN	571
Substance Dependence and Externalizing Psychopathology in Adolescent Boys with Small, Average, or Large P300 Event-Related Potential Amplitude SCOTT R. CARLSON, JOANNA KATSANIS, WILLIAM G. IACONO, AND AMY K. MERTZ	583
Secretory Immunoglobulin A and Cardiovascular Reactions to Mental Arithmetic, Cold Pressor, and Exercise: Effects of Beta-Adrenergic Blockade ALEXANDRA WINZER, CHRISTOPHER RING, DOUGLAS CARROLL, GONNEKE WILLEMSSEN, MARK DRAYSON, AND MARTIN KENDALL	591
Secretory Immunoglobulin A and Cardiovascular Activity during Mental Arithmetic and Paced Breathing CHRISTOPHER RING, DOUGLAS CARROLL, GONNEKE WILLEMSSEN, JONATHAN COOKE, ADRIAN FERRARO, AND MARK DRAYSON	602
Contrasts between the Cardiovascular Concomitants of Tests of Planning and Attention H.C. MIDDLETON, A. SHARMA, B.J. SAHKIAN, AND T.W. ROBBINS	610
Emotion Processing in Three Systems: The Medium and the Message ROBERT F. SIMONS, BENJAMIN H. DETENBER, THOMAS M. ROEDEMA, AND JASON E. REISS	619
Contrasting Patterns of Brain Activity in Anxious Apprehension and Anxious Arousal JACK B. NITSCHKE, WENDY HELLER, PATRICK A. PALMIERI, AND GREGORY A. MILLER	628
Brain Responses Reveal the Learning of Foreign Language Phonemes ISTVÁN WINKLER, TEIJA KUJALA, HANNU TIITINEN, PÄIVI SIVONEN, PAAVO ALKU, ANNE LEHTOKOSKI, ISTVÁN CZIGLER, VALÉRIA CSÉPE, RISTO J. ILMONIEMI, AND RISTO NÄÄTÄNEN	638
Is the Target-to-Target Interval a Critical Determinant of P3 Amplitude? CRAIG J. GONSALVEZ, EVIAN GORDON, SANDRA GRAYSON, ROBERT J. BARRY, ILLARIO LAZZARO, AND HOMAYOUN BAHRAMALI	643
An Electrophysiological Analysis of Modality-Specific Aspects of Word Repetition CARRIE A. JOYCE, KEN A. PALLER, TANYA J. SCHWARTZ, AND MARTA KUTAS	655

VOLUME 36 ■ NOVEMBER 1999 ■ NUMBER 6

Presidential Address, 1998

Schizophrenia: The Broken P300 and Beyond JUDITH M. FORD	667
For Distinguished Early Career Contribution to Psychophysiology: Award Address, 1998	
Decreased Pain Perception and Risk for Hypertension: Considering a Common Physiological Mechanism CHRISTOPHER R. FRANCE	683

The Effects of Stimulus Intensity and Age on Visual-Evoked Potentials (VEPs) in Normal Children M. CARRILLO-DE-LA-PEÑA, S. RODRÍGUEZ HOLGUÍN, M. CORRAL, AND F. CADAVEIRA	693
The Effects of Threat and Nonthreat Word Lead Stimuli on Blink Modification CHRISTOPHER J. AITKEN, DAVID A.T. SIDDELE, AND OTTMAR V. LIPP	699
An ERP Correlate of Metrical Stress in Spoken Word Recognition KOEN B.E. BÖCKER, MARCEL C.E. BASTIAANSEN, JEAN VROOMEN, CORNELIS H.M. BRUNIAM, AND BEATRICE DE GELDER	706
Insights from Event-Related Potentials into the Temporal and Hierarchical Organization of the Ventral and Dorsal Streams of the Visual System in Selective Attention MANUEL MARTÍN-LOECHES, JOSÉ A. HINOJOSA, AND FRANCISCO J. RUBIA	721
Separate Memory-Related Processing for Auditory Frequency and Patterns CLAUDE ALAIN, ANDRE ACHIM, AND DAVID L. WOODS	737
Event-Related Potential Correlates of Individual Differences in Working Memory Capacity HIROSHI NITTONO, YASUHIRO NAGEISHI, YOSHIAKI NAKAJIMA, AND PETER ULLSPERGER	745
Learned Maintenance of Pain: Muscle Tension Reduces Central Nervous System Processing of Painful Stimulation in Chronic and Subchronic Pain Patients BÄRBEL KNOTH, HERTA FLOR, NIELS BIRBAUMER, AND MARKUS M. SCHUGENS	755
Semantic and Affective Processing in Psychopaths: An Event-Related Potential (ERP) Study KENT A. KIEHL, ROBERT D. HARE, JOHN J. McDONALD, AND JOHANN BRINK	765
From Print to Meaning: An Electrophysiological Investigation of the Role of Phonology in Accessing Word Meaning JOHANNES C. ZIEGLER, ABDELRHANI BENRAÏSS, AND MIREILLE BESSON	775
Sentence Comprehension and Word Repetition: A Positron Emission Tomography Investigation LAURIE A. STOWE, ANNE M.J. PAANS, ALBERTUS A. WIJERS, FRANS ZWARTS, GUSBERTUS MULDER, AND WILLEM VAALBURG	786
ERP Indicators of Disturbed Attention in Mild Closed Head Injury: A Frontal Lobe Syndrome? ANNE-KRISTIN SOLBAKK, IVAR REINVANG, CHRISTOPHER NIELSEN, AND KJETIL SUNDET	802
Cardiovascular Reactivity and Adaptation to Recurrent Psychological Stress: Effects of Prior Task Exposure ROBERT M. KELSEY, JIM BLASCOVICH, JOE TOMAKA, CHRISTOPHER L. LEITTEN, TAMERA R. SCHNEIDER, AND STEFAN WIENS	818
Special Reports	
Scaling Is Necessary when Making Comparisons between Shapes of Event-Related Potential Topographies: A Reply to Haig et al. DANIEL S. RUCHKIN, RAY JOHNSON, JR., AND DAVID FRIEDMAN	832
Two Cognitive Systems Simultaneously Prepared for Opposite Events WALTER RITTER, ELYSE SUSSMAN, DIANA DEACON, NELSON COWAN, AND HERBERT G. VAUGHAN, JR.	835
Announcements	
Consulting Editors for Volume 36, 1999	
Indices and Contents for Volume 36, 1999	843

